

WHAT IS CLAIMED IS:

1. A resistor, comprising a mixture of at least one of a metal conductive oxide and a transition metal material with an insulating oxide.
2. A resistor according to claim 1, which is produced using a flame-spraying method.
3. A resistor according to claim 2, wherein the flame-spraying method includes plasma flame-spraying.
4. A resistor according to claim 2, wherein the flame-spraying method includes laser flame-spraying.
5. A resistor according to claim 1, wherein the metal conductive oxide is at least one material selected from the group consisting of titanium oxide, rhenium oxide, iridium oxide, ruthenium oxide, vanadium oxide, rhodium oxide, osmium oxide, lanthanum titanate, SrRuO_3 , molybdenum oxide, tungsten oxide, and niobium oxide.
6. A resistor according to claim 5, wherein the metal conductive oxide is at least one material selected from the group consisting of TiO , ReO_3 , IrO_2 , RuO_2 , VO , RhO_2 , OsO_2 , LaTiO_3 , SrRuO_3 , MoO_2 , WO_2 , and NbO .
7. A resistor according to claim 1, wherein the transition metal material is at least one material selected from the group consisting of titanium, rhenium, vanadium, and niobium.

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8. A resistor according to claim 1, wherein the insulating oxide is at least one material selected from the group consisting of alumina, silicon oxide, zirconium oxide, and magnesium oxide.

9. A resistor according to claim 8, wherein the insulating oxide is at least one material selected from the group consisting of Al_2O_3 , SiO_2 , ZrO_2 , and MgO .

10. A resistor according to claim 1, wherein the metal conductive oxide is TiO , and the insulating oxide is Al_2O_3 .

11. A resistor according to claim 1, which has an area resistance value of at least of about $1 \text{ G}\Omega/\square$.

12. A cathode ray tube, comprising the resistor according to claim 11.

13. A method for producing a resistor, comprising the steps of:

forming an electrode on one of an alumina substrate, a glass substrate and a glass tube; and

flame-spraying a mixture of at least one of a metal conductive oxide and a transition metal material with an insulating oxide, thereby depositing the mixture on the one of the alumina substrate, the glass substrate and the glass tube.

14. A field emission display, comprising:

an anode;

a cathode; and

a resistor provided between the anode and the cathode,

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wherein:

the resistor includes a mixture of at least one of a metal conductive oxide and a transition metal material with an insulating oxide,

the resistor is formed using a flame-spraying method, and

the resistor has an area resistance value of at least about 1 G Ω /□.

15. A field emission display according to claim 14, further comprising a support provided between the anode and the cathode, wherein the support is covered with the resistor.

16. A field emission display according to claim 15, wherein the support includes at least one of glass and alumina.

17. A field emission display according to claim 14, wherein the metal conductive oxide is at least one material selected from the group consisting of titanium oxide, rhenium oxide, iridium oxide, ruthenium oxide, vanadium oxide, rhodium oxide, osmium oxide, lanthanum titanate, SrRuO₃, molybdenum oxide, tungsten oxide, and niobium oxide.

18. A field emission display according to claim 17, wherein the metal conductive oxide is at least one material selected from the group consisting of TiO, ReO₃, IrO₂, RuO₂, VO, RhO₂, OsO₂, LaTiO₃, SrRuO₃, MoO₂, WO₂, and NbO.

19. A field emission display according to claim 14, wherein the transition metal material is at least one material selected from the group consisting of titanium, rhenium, vanadium, and niobium.

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20. A field emission display according to claim 14, wherein the insulating oxide is at least one material selected from the group consisting of alumina, silicon oxide, zirconium oxide, and magnesium oxide.

21. A field emission display according to claim 20, wherein the insulating oxide is at least one material selected from the group consisting of Al_2O_3 , SiO_2 , ZrO_2 , and MgO .

22. A field emission display according to claim 14, wherein the metal conductive oxide is TiO , and the insulating oxide is Al_2O_3 .

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